

CLAIMS

Please cancel claim 1, without prejudice.

Please add new claims 289-369.

289. (New) A method for evaluating a proposed transaction involving the sale and purchase of electric power between at least one energy service provider and at least one customer, comprising:

- identifying an electric load of a customer;
- modeling a combination of the electric load of the customer with existing electric power supply obligations of an energy service provider; and
- determining an effect upon the energy service provider's efficiency of energy usage of combining the electric load of the customer with the existing electric power supply obligations of the energy service provider.

290. (New) The method of claim 289, further comprising providing data relevant to pricing the proposed electric power transaction between the customer and the energy service provider.

291. (New) The method of claim 289, wherein identifying the electric load of the customer includes:

- accessing a database including data relating to the electric load of the customer;
- selecting at least one discrete criterion; and
- determining whether the data in the database relating to the electric load of the customer satisfy the at least one discrete criterion.

292. (New) The method of claim 291, wherein the electric load data are normalized.

293. (New) The method of claim 291, wherein the at least one discrete criterion includes one of a specified load shape characteristic, a load factor, a power factor, a size of load, a location of load, and a customer SIC code.

294. (New) The method of claim 289, wherein determining the effect on the efficiency of energy usage includes determining a change in the energy service provider's efficiency

in electric energy usage as a result of (i) adding all of the customer's electric load to the supply obligations of the energy service provider, (ii) adding a portion of the customer's electric load to the supply obligations of the energy service provider, (iii) removing all of the customer's electric load from the supply obligations of the energy service provider, or (iv) removing a portion of the customer's electric load from the supply obligations of the energy service provider.

295. (New) The method of claim 294, wherein determining an effect on the efficiency of electric energy usage includes evaluating whether the energy service provider would be required to acquire an additional electric power supply in order to service the added electric load.

296. (New) The method according to claim 289, wherein determining the effect on the efficiency of energy usage includes

selecting at least one impact criterion; and

determining whether combining the electric load of the customer with the electric power supply obligations of the energy service provider would satisfy the selected impact criterion.

297. (New) The method according to claim 296, wherein the at least one impact criterion includes a change in a load factor as a result of combining the electric load of the customer with the electric power supply obligations of the energy service provider.

298. (New) The method according to claim 296, wherein determining whether the at least one impact criterion is satisfied is made in relation to a combination of the electric power supply obligations of the energy service provider with one of (i) an aggregated electric load of the customer and (ii) an aggregated electric load of at least two customers.

299. (New) The method according to claim 296, wherein the at least one impact criterion includes one of (i) maximum hourly demand, (ii) change in integral multiple factor, (iii) maximum load duration value decrease, (iv) minimum load duration value increase, (v) amount available capacity can be exceeded, (vi) minimum integral multiple

factor increase, (vii) maximum integral multiple factor decrease, (viii) minimum load factor increase, and (ix) maximum load factor decrease.

300. (New) The method according to claim 296, wherein the impact criterion includes determining a change in energy service provider's efficiency in electric energy usage as a result of (i) adding all of the customer's electric load to the supply obligations of the energy service provider, (ii) adding a portion of the customer's electric load to the supply obligations of the energy service provider, (iii) removing all of the customer's electric load from the supply obligations of the energy service provider, or (iv) removing a portion of the customer's electric load from the supply obligations of the energy service provider.

301. (New) A method for evaluating a proposed transaction involving the shifting of electric power supply obligations between a first energy service provider and a second energy service provider, comprising:

identifying electric power supply obligations of the first energy service provider and the second energy service provider;

choosing a method for evaluating a shift of a portion of the electric power supply obligations of the first energy service provider to the second energy service provider based on an effect of the shift upon an efficiency of energy usage of at least one of the first energy service provider and the second energy service provider; and

applying the selected method to an analysis of the power supply obligations of the first and second energy service providers.

302. (New) The method of claim 301, wherein choosing the method includes evaluating a shift of a portion of the electric power supply obligations of the second energy service provider to the first energy service provider.

303. (New) The method of claim 302, further comprising providing data relevant to identifying proposed shifting of electric power supply obligations between the first energy service provider and the second energy service provider.

304. (New) The method of claim 303, further comprising providing data relevant to pricing the proposed transaction involving the shifting of electric power supply obligations between the first energy service provider and the second energy service provider.

305. (New) The method of claim 301, wherein identifying the electric power supply obligations of the first and second energy service providers includes:

accessing a database including data relating to the electric power supply obligations of the first and second energy service providers;  
selecting at least one discrete criterion; and  
determining whether the data in the database relating to the electric power supply obligations of the first and second power supply obligations satisfy the at least one discrete criterion.

306. (New) The method of claim 305 wherein the data are normalized.

307. (New) The method according to claim 301, wherein the method for evaluating the shift of electric power supply obligations includes one of an LF/LF method, an IMF/LF method, an LF/IMF method, an LF method and an IMF method.

308. (New) A method for evaluating historical transactions involving the sale and purchase of electric power between at least one energy service provider and at least one customer, comprising:

identifying a historical transaction between a customer and an energy service provider;

modeling a combination of the electric load of the customer in the historical transaction to the electric power supply obligations of the energy service provider in the historical transaction; and

determining whether combining the electric load of the customer with the electric power supply obligations of the service provider in the historical transaction improved an efficiency of energy usage by the service provider.

309. (New) The method of claim 308, wherein identifying the historical transaction includes

accessing a first database including data relating to historical transactions between customers and energy service providers;

selecting at least one discrete criterion; and

identifying whether the data in the first database relating to the historical transactions satisfy the at least one discrete criterion.

310. (New) The method of claim 308, wherein the data in the first database are normalized.

311. (New) The method of claim 308, wherein the at least one discrete criterion includes one of a specified load shape characteristic, a load factor, a power factor, a size of load, a location of load, and a customer SIC code.

312. (New) The method of claim 311, wherein determining whether combining the electric load of the customer to the existing electric power supply obligations of the service provider in the historical transactions improved the efficiency of energy usage includes:

selecting at least one impact criterion; and

determining whether combining the electric load of the customer in the historical transaction with the electric power supply obligations of the energy service provider in the historical transaction satisfies the at least one impact criterion.

313. (New) A method for evaluating historical transactions involving a shift of electric power supply obligations between a first energy service provider and a second energy service provider, comprising:

identifying historical electric power supply obligations of the first energy service provider and the second energy service provider;

choosing a method for evaluating a historical shift of a portion of the historical electric power supply obligations of the first energy service provider to the second energy service provider based on an effect upon an efficiency of energy usage of

at least one of the first energy service provider and the second energy service provider;  
and

applying the selected method to the historical shift of the portion of the historical electric power supply obligations of the first and second energy service provider between them.

314. (New) The method of claim 313, wherein choosing the method includes evaluating a shift of a portion of the historical electric power supply obligations of the second energy service provider to the first energy service provider.

315. (New) The method of claim 313, wherein identifying the historical transaction includes

accessing a first database including data relating to historical transactions involving the first and second energy service providers;

selecting at least one discrete criterion; and

identifying whether the data in the first database relating to the historical transactions satisfy the at least one discrete criterion.

316. (New) The method of claim 315, wherein the data in the first database are normalized.

317. (New) The method of claim 315, wherein the at least one discrete criterion includes one of an ESP ID, an ESP load ID, a generation service area, and ESP load characteristic information.

318. (New) The method of claim 317, wherein the method for evaluating the shift of electric power supply obligations of the first and second energy service providers includes one of an LF/LF method, an IMF/LF method, an LF/IMF method, an LF method and an IMF method.

319. (New) A system for evaluating a proposed transaction involving the sale and purchase of electric power between at least one energy service provider and at least one customer, comprising:

a processor; and

a memory coupled to the processor, the memory storing a computer program to be executed by the processor, the executed computer program

identifying an electric load of a customer,

combining the electric load of the customer with the existing electric power supply obligations of an energy service provider, and

determining an effect on an efficiency of energy usage by the service provider as a result of combining the electric load of the customer with the existing electric power supply obligations of the energy service provider.

320. (New) The system of claim 319, wherein the processor is in a computer processor system including one of a personal computer, a server computer, a mainframe computer, a microcomputer, and a minicomputer.

321. (New) The system of claim 320, wherein the computer processor system is in a distributed computing environment.

322. (New) A system for evaluating a proposed transaction involving a shift of electric power supply obligations between a first energy service provider and a second energy service provider, comprising:

a processor; and

a memory coupled to the processor, the memory storing a computer program to be executed by the processor, the executed computer program

identifying electric power supply obligations of the first energy service provider and the second energy service provider,

choosing a method for evaluating a shift of a portion of the electric power supply obligations of the first energy service provider to the second energy service provider based on an effect of the shift upon an efficiency of energy usage of at least one of the first energy service provider and the second energy service provider, and

applying the selected method to the power supply obligations of the first and second energy service providers.

323. (New) The system of claim 322, wherein choosing the method includes evaluating a shift of a portion of the electric power supply obligations of the second energy service provider to the first energy service provider.

324. (New) The system of claim 322, wherein the executed computer program provides data relevant to identifying proposed shifting of electric power supply obligations between the first energy service provider and the second energy service provider.

325. (New) The method of claim 324, wherein the executed computer program provides data relevant to pricing a proposed transaction involving the shifting of electric power supply obligations between the first energy service provider and the second energy service provider.

326. (New) The system of claim 322, wherein the method for evaluating the shifting of electric power supply obligations includes one of an LF/LF method, an IMF/LF method, an LF/IMF method, an LF method and an IMF method.

327. A retail electric power exchange, comprising:

an electric power exchange node; and

at least one exchange database coupled to the exchange node,

wherein the power exchange node includes a retail load search engine

capable of

identifying an electric load of a customer stored in the exchange

database,

modeling a combination of the electric load of the customer with the existing electric power supply obligations of an energy service provider stored in the exchange database, and

determining an effect on an efficiency of energy usage by the service provider of combining the electric load of the customer with the existing electric power supply obligations of the energy service provider.



328. (New) The retail electric power exchange of claim 327, wherein the exchange node includes a retail trading engine capable of arranging the proposed transaction involving the combination of the customer's electric load and the electric power supply obligations of the energy service provider.

329. (New) The retail electric power exchange of claim 327, wherein the electric load of the customer includes an aggregation of multiple electric loads of the customer.

330. (New) The retail electric power exchange of claim 327, wherein the exchange node includes a retail price search engine capable of:

- identifying a historical transaction between a customer and an energy service provider;

- modeling the combination of the electric load of the customer in the historical transaction with the electric power supply obligations of the energy service provider in the historical transaction;

- determining whether combining the electric load of the customer with the electric power supply obligations of the service provider in the historical transaction improved an efficiency of energy usage of the service provider;

- providing pricing data concerning the historical transaction; and
- providing data relevant to pricing the proposed transaction involving the purchase and sale of electric power between the customer and the energy service provider.

331. (New) A retail electric power exchange, comprising:

- an electric power exchange node; and
- at least one exchange database coupled to the exchange node,
- wherein the exchange node includes an optimization load search engine capable of

- identifying electric power supply obligations of a first energy service provider and a second energy service provider,

- choosing a method for evaluating a shift of a portion of the electric power supply obligations of the first energy service provider to the second energy service

provider based on an effect of the shift upon an efficiency of energy usage of at least one of the first energy service provider and the second energy service provider, and

applying the selected method to the power supply obligations of the first and second energy service providers.

332. (New) The retail power exchange of claim 331, wherein choosing the method includes evaluating a shift of a portion of the electric power supply obligations of the second energy service provider to the first energy service provider.

333. (New) The retail electric power exchange of claim 331, wherein the method for evaluating the shift of electric power supply obligations includes one of an LF/LF method, an IMF/LF method, an LF/IMF method, an LF method and an IMF method.

334. (New) The retail electric power exchange of claim 331, wherein identifying the electric power supply obligations of the first and second energy service providers includes:

accessing the exchange database including data relating to the electric power supply obligations of the first and second energy service providers;  
selecting at least one discrete criterion; and  
determining whether the data in the exchange database relating to the electric power supply obligations of the first and second power supply obligations satisfy the at least one discrete criterion.

335. (New) The retail electric power exchange of claim 331, wherein the exchange node includes an optimization trading engine capable of arranging the proposed transaction involving the shifting of electric power supply obligations between the first and second energy service providers.

336. (New) The retail electric power exchange of claim 331, wherein the exchange node includes an optimization price search engine capable of:

identifying historical electric power supply obligations of the first energy service provider and the second energy service provider;

choosing a method for evaluating a shift of a portion of the historical electric power supply obligations of the first energy service provider to the second energy service provider based on an effect of the shift upon an efficiency of energy usage of one or both of the first energy service provider and the second energy service provider;

applying the selected method to the historical electric power supply obligations of the first and second energy service provider;

providing data relevant to the pricing of the historical transaction; and

providing data relevant to pricing a proposed electric power shifting transaction between a first energy service provider and a second energy service provider.

337. (New) The retail electric power exchange of claim 336, wherein choosing the method includes evaluating a shift of a portion of the electric power supply obligations of the second energy service provider to the first energy service provider.

338. (New) A network of retail electric power exchanges, comprising:

a first electric power exchange node; and

a second electric power exchange node coupled to the first electric power exchange node;

wherein each of the first and second electric power exchange nodes includes at least one exchange database coupled to the exchange node and wherein each exchange node includes

a retail load search engine capable of

identifying at least one electric load of a first customer and a second customer stored in the exchange database,

modeling a combination of the electric load of the first customer with one of (i) the electric load of second customer and (ii) existing electric power supply obligations of a first energy service provider, and

determining one of (i) an effect on an efficiency of energy usage by one or both customers as a result of combining the electric loads of the two customers and (ii) an effect on an efficiency of energy usage by the service provider from combining the electric load of the first customer with the existing electric power supply obligations of the first energy service provider;

an optimization load search engine capable of

identifying electric power supply obligations of the first energy service provider and a second energy service provider,

choosing a method for evaluating at least one of (i) a shift of a portion of the electric power supply obligations of the first energy service provider to the second energy service provider and (ii) a shift of a portion of the electric power supply obligations of the second energy service provider to the first energy service provider, based on an effect of the shift upon an efficiency of energy usage of at least one of the first energy service provider and the second energy service provider, and

applying the selected method to the power supply obligations of the first and second energy service providers;

a retail trading engine capable of arranging a proposed transaction involving either (i) an aggregation of the electric loads of the first and second customers or (ii) the addition of the electric load of the first customer to the electric power supply obligations of the first energy service provider; and

an optimization trading engine capable of arranging the proposed transaction involving the shift of electric power supply obligations between the first and second energy service providers.

339. (New) The network of claim 338, wherein the first and second exchange nodes include a retail price search engine capable of:

identifying a historical transaction involving one of (i) a purchase and sale of electricity between a customer and an energy service provider and (ii) an aggregation transaction between two customers;

modeling a combination of the electric load of the customer in the historical transaction with one of (i) the electric power supply obligations of the energy service provider in the historical purchase and sale transaction and (ii) an electric load of another customer in the historical aggregation transaction;

determining whether combining the electric load of the customer with one of (i) the electric power supply obligations of the service provider in the historical purchase and sale transaction improved an efficiency of energy usage of the energy

service provider and (ii) the electric load of another customer in the historical aggregation transaction improved an efficiency of energy usage of either of the customers;

providing data relevant to one of (i) the pricing of the historical purchase and sale transaction and (ii) terms of the historical aggregation transaction;

providing data relevant to one of (i) pricing a proposed electric power transaction between the customer and the energy service provider and (ii) terms of a proposed aggregation transaction; and

wherein the first and second exchange nodes include an optimization price search engine capable of

identifying historical electric power supply obligations of the energy service provider and a second energy service provider,

choosing a method for evaluating at least one of (i) a shift of a portion of the electric power supply obligations of the energy service provider to the second energy service provider and (ii) a shift of a portion of the electric power supply obligations of the second energy service provider to the energy service provider, based on an effect of the shift upon an efficiency of energy usage of at least one of the energy service provider and the second energy service provider,

applying the selected method to the historical electric power supply obligations of the energy service provider and the second energy service provider,

providing data relevant to pricing of the historical load shifting transaction; and

providing data relevant to pricing a proposed electric power shifting transaction between the first energy service provider and the second energy service provider.

340. (New) The network of claim 338, wherein the electric load of the first customer includes an aggregation of the electric loads of at least two customers.

341. (New) The network of claim 338, wherein the retail load search engine is capable of searching, and the retail trading engine is capable of facilitating, transactions involving one of local loads and network loads.

342. (New) The network of claim 338, wherein the retail trading engine facilitates at least one of functional division, practical division, and unit division of the electric load of the customer.

343. (New) The network of claim 338, wherein the retail search engine is capable of searching, and the retail trading engine capable of facilitating, transactions involving electric loads of customers that consume electric power at multiple sites.

344. (New) The network of claim 338, wherein the first and second electric power exchange nodes each cover one of a local territory, a regional territory and a national territory.

345. (New) The network of claim 338, wherein the retail load search engine, the optimization load search engine, the retail trading engine and the optimization trading engine are capable of interacting with the exchange database coupled to each of the first and second electric power exchange nodes.

346. (New) A method for evaluating a proposed transaction involving aggregation of the electric loads of at least two customers, comprising:

- identifying the electric loads of at least two customers;
- modeling the combination of the electric loads; and
- determining an effect upon each of the customer's efficiency in energy usage of combining the electric loads.

347. (New) The method of claim 346, further comprising providing data relevant to terms of the proposed aggregation transaction between the two customers.

348. (New) The method of claim 346, wherein identifying the electric loads of each customer includes:

- accessing a database including data relating to the electric loads of the two customers;
- selecting at least one discrete criterion; and
- determining whether the data in the database relating to the electric load of the customers satisfy the at least one discrete criterion.

349. (New) The method of claim 348, wherein the electric load data are normalized.
350. (New) The method of claim 348, wherein the at least one discrete criterion includes one of a specified load shape characteristic, a load factor, a power factor, a size of load, a location of load, and a customer SIC code.
351. (New) The method of claim 346, wherein determining the effect on the efficiency of energy usage includes determining a change in the customers' efficiency in electric energy usage as a result of (i) adding all of the electric loads, (ii) adding a portion of the electric load of one customer to all of the electric load of the other customer, or (iii) adding a portion of each of the customers' loads to one another.
352. (New) The method according to claim 346, wherein determining an effect on the efficiency of energy usage includes  
selecting at least one impact criterion; and  
determining whether combining the electric loads of the customers would satisfy the selected impact criterion.
353. (New) The method according to claim 352, wherein the at least one impact criterion includes a change in a load factor as a result of combining the electric loads of the two customers.
354. (New) The method according to claim 352, wherein the determination whether the at least one impact criterion is satisfied is made in relation to the combination of one of (i) an aggregated electric load of one customer and (ii) an aggregated electric load of both customers with one of (a) the electric load of another customer, (b) an aggregated electric load of another customer and (c) an aggregated electric load of at least two additional customers.
355. (New) The method according to claim 352, wherein the at least one impact criterion includes one of (i) maximum hourly demand, (ii) change in integral multiple factor, (iii) maximum load duration value decrease, (iv) minimum load duration value increase, (v) amount available capacity can be exceeded, (vi) minimum integral multiple

factor increase, (vii) maximum integral multiple factor decrease, (viii) minimum load factor increase, and (ix) maximum load factor decrease.

356. (New) A method for evaluating historical transactions involving the aggregation of the loads of at least two customers, comprising:

- identifying a historical aggregation transaction between two customers;
- modeling a combination of the electric loads of the two customers in the historical transaction; and

- determining whether combining the electric loads of the two customers in the historical transaction improved an efficiency of energy usage of either of the two customers.

357. (New) The method of claim 356, wherein identifying the historical transaction includes

- accessing a first database including data relating to the customers and the customer loads involved in historical aggregation transactions between customers;

- selecting at least one discrete criterion;

- determining whether the at least one discrete criterion is to be applied to one or both of the customers involved in the historical transaction; and

- identifying whether the data in the first database relating to the historical transactions satisfy the at least one discrete criterion.

358. (New) The method of claim 356, wherein the data in the first database are normalized.

359. (New) The method of claim 356, wherein the at least one discrete criterion includes one of a specified load shape characteristic, a load factor, a power factor, a size of load, a location of load, and a customer SIC code.

360. (New) The method of claim 359, wherein determining whether combining the electric loads of the customers' electric loads in the historical transactions improved the efficiency of energy usage of one or both of those customers includes:

- selecting at least one impact criterion;



determining whether the at least one discrete criterion is to be applied to one or both of the customers' loads involved in the historical transaction; and

determining whether combining the electric load of the customer in the historical transaction with the electric power supply obligations of the energy service provider in the historical transaction satisfies the at least one impact criterion.

361. (New) A system for evaluating a proposed transaction involving the aggregation of the customer loads of at least two customers, comprising:

a processor; and

a memory coupled to the processor, the memory storing a computer program to be executed by the processor, the executed computer program

identifying the electric loads of customers,

combining the electric loads of two customers, and

determining an effect on an efficiency of energy usage by one or both of the customers as a result of combining the electric loads of the two customers.

362. (New) The system of claim 361, wherein the processor is in a computer processor system including one of a personal computer, a server computer, a mainframe computer, a microcomputer, and a minicomputer.

363. (New) The system of claim 362, wherein the computer processor system is in a distributed computing environment.

364. (New) A retail electric power exchange, comprising:

an electric power exchange node; and

at least one exchange database coupled to the exchange node,

wherein the power exchange node includes a retail load search engine capable of

identifying electric loads of at least two customers stored in the exchange database,

modeling a combination of the electric loads of the customers stored in the exchange database, and

determining an effect on an efficiency of energy usage by at least one of the two customers of combining the electric loads.

365. (New) The retail electric power exchange of claim 364, wherein the exchange node includes a retail trading engine capable of arranging the proposed transaction involving the aggregation of the customers' electric loads.

366. (New) The retail electric power exchange of claim 364, wherein the electric load of the customer includes an aggregation of multiple electric loads of the customer.

367. (New) The retail electric power exchange of claim 364, wherein the exchange node includes a retail price search engine capable of:

identifying a historical aggregation transaction between two customers;

modeling a combination of the electric loads of the two customers in the historical transaction;

determining whether combining the electric loads of the two customers in the historical transaction improved an efficiency of energy usage of either of the two customers;

providing data concerning the terms of the historical transaction; and

providing data relevant to pricing a proposed aggregation transaction involving two customers.

368. (New) A network of retail power exchanges, comprising:

a first electric power exchange; and

a second electric power exchange coupled to the first electric power exchange;

wherein a request made at the first electric power exchange to evaluate a proposed transaction involving the sale and purchase of electric power between at least one energy service provider and at least one customer is carried out by either of the first electric power exchange and the second electric power exchange based on an effect upon the energy service provider's efficiency of energy usage from combining an electric load of the customer with an existing electric power supply obligation of the energy service provider.

369. (New) A network of electric power exchange, comprising:

a first electric power exchange; and

a second electric power exchange coupled to the first electric power exchange;

wherein a request made at the first electric power exchange to evaluate a proposed transaction involving the shifting of electric power supply obligations between a first energy service provider and a second energy service provider is carried out by either of the first electric power exchange and the second electric power exchange based on an effect of the shift upon an efficiency of energy usage of at least one of the first energy service provider and the second energy service provider.